

## REMARKS

### Request for Telephone Interview

Applicants hereby respectfully request a telephone interview with the Examiner to discuss the present application, prior to the Examiner's acting on this amendment. The Examiner is requested to call Applicants' representative (the undersigned) by telephone at (408) 720-8300 to schedule such interview.

### Summary of Amendment

After entry of this response, claims 1 to 8, 10, 12 to 26, and 28 to 33 are pending. Claims 1, 4, 12, 21, 25 and 26 are the independent claims and have been amended, and claims 28 to 33 have been added. Entry of this response, reconsideration and further examination are respectfully requested.

### Claim Rejections

Claims 1 to 8 and 10 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,026,448 (Goldrian) in view of U.S. Patent No. 6,658,469 (Massa). Claims 12 to 26 were rejected under § 103(a) over Goldrian in view of Massa and U.S. Patent No. 6,499,028 (Brock).

The claims shall now be discussed, grouped according to independent claim.

#### Claims 1-3 and 28:

Claim 1 (as amended) is as follows:

1. A method of sending data between a client and a server using at least one of plural data buffers of different sizes in said client and at least one of plural data buffers of different sizes in said server, comprising steps of:

    sending, from said client to said server, an address of a client data buffer located within said client, **said address of said client data buffer for**

**a data transfer responsive to a size of a data block to be transferred;**  
and

transferring said data block between said client and said server using said client data buffer and a server data buffer from among the plural data buffers in said client and the plural data buffers in said server, said client data buffer and said server data buffer matched to a size of data blocks to be transferred into or out of those data buffers. (Emphasis added.)

The cited references do not disclose or suggest, individually or in combination, the foregoing features of claim 1, at least with respect to “said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred” (emphasis added). The Office acknowledged that Goldrian does not teach this feature. However, the Office cited Massa as teaching this feature, as follows:

In the same field of endeavor, Massa discloses a data transfer between two applications or devices 132 and 136 (application 136 is considered as a client and application 132 is a server) (Abstract, col. 11, lines 10-20 and Fig. 5). Massa discloses sending an initial message, which includes information to indicate the size of the data to be transferred from the switch 126 of application 136 (client) to the switch 120 of application 132 (server) via message buffers 148 and 125 (data buffers) (col. 12, lines 13-17). Massa discloses each application’s set of receiving buffers may also be large or small (plural data buffers of different sizes in the client and the server) (col. 11, lines 31-53). Also, Massa discloses the remote switch 126 of the server transfers an amount of data equal to the size of the receiving buffer 134 (client’s buffer) from the transmission buffer 138 (server’s buffer) into the set of receiving buffers 134 (col. 12, lines 42-59). Final Office Action, page 3.

However, Applicant respectfully submits Massa does not disclose or suggest that *an address of a client data buffer for a data transfer is responsive to a size of a data block to be transferred*.

In the Advisory Action, the Examiner responded to Applicant’s arguments (filed on 2/21/2006 in response to the Final Office Action) as follows:

In reply to Applicant’s argument, Massa discloses in col. 12, lines 13-17 that sending an initial message, which includes information to the size of the data to be transferred from the switch 126 of application 136 (client) to the switch 120 of application 132 (server) via message buffers 148 and 125 (data buffers). Massa also discloses in col. 12, lines 42-59 that the message includes the location (address) of the application’s set of receiving buffers. Advisory Action, continuation sheet.

Applicant respectfully submits that the Office is mistaken. First, it is true Massa discloses that switch 126 sends a message to switch 120 a message which includes information on the size of the data to be transferred (col. 12, lines 13-17). However, there is no indication in Massa that the address of any client data buffer is in any way responsive to the size information in that message, nor is there any basis to infer that there is any relationship at all between the size of the data and the address of any client data buffer. It is also true Massa discloses (in col. 12, lines 42-59) that switch 126 sends another message to switch 120 that includes the location of the application's set of receiving buffers. However, again, there is no indication in Massa that the location of those buffers is responsive to the size of a data block to be transferred, nor is there any basis to infer that any such relationship exists in Massa.

Furthermore, the messages being described in Massa at col. 12, lines 13-17 and lines 42-59 are being sent only between two intermediary switches (126 and 120), not from a client to a server as recited in claim 1. For example, those messages are not being sent from application 136 to application 132, which the Examiner compares to the "client" and "server" in Applicant's claims, respectively.

In summary, Massa fails to disclose at least the claim feature that "said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred". The Office has already admitted that Goldrain fails to disclose such a feature. Therefore, the rejection is improper, because no combination of the cited references discloses or suggests all of the limitations of claim 1.

Turning to new claim 28, that claim recites that "said data buffers in said client include different sizes and alignments than said data buffers in said server." This feature is useful, for example, if a server is going to conduct data transfers with different clients that have different sizes and arrangements of data buffers. The server would be able to have suitable data buffers for such

data transfers with such clients. None of the cited references is seen by Applicant to contain any such teaching.

In view of the foregoing, claim 1 and its dependent claims are allowable over the applied art. Accordingly, withdrawal of the outstanding rejection and allowance of these claims are respectfully requested.

Claims 4-8, 10, and 29:

Claim 4 is reproduced here as amended:

4. A system including  
a client and server;  
a NUMA communication link coupled to said client and server; and  
plural data buffers of different sizes in said client and plural data buffers of different sizes in said server for data transfers between said client and said server using said NUMA communication link;  
wherein when data is transferred between said client and said server using said data buffers, an address of a client data buffer located within said client is sent from said client to said server, with said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred, and said client data buffer and a server data buffer from among the plural data buffers are used to transfer said data block, with said client data buffer and said server data buffer matched to a size of said data block to be transferred into or out of those data buffers.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 4, at least with respect to "said address of said client data buffer for a data transfer responsive to a size of a data block to be transferred." The applied art also is not seen to disclose or to suggest new claim 29's feature that "said data buffers in said client include different sizes and alignments than said data buffers in said server." Accordingly, claim 4 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claims 12-20 and 30:

Claim 12 is reproduced here as amended:

12. A system including  
a server, said server having a memory including a client communication region and a data transfer region, said data transfer region having plural data buffers of different sizes for data transfers to and from a client, at least some of said data buffers matched to different sizes of data blocks to be transferred into or out of those data buffers and matched to different sizes of data buffers in said client that are also matched to said different sizes of said data blocks to be transferred; and  
a remote DMA communication link coupled to said data transfer region;  
wherein said client communication region includes information regarding a data transfer into or out of said data transfer region; and  
wherein an address of one or more of said server data buffers for said data transfer is selected for a data transfer responsive to a size of data blocks for said data transfer.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 12, at least with respect to “wherein an address of one or more of said server data buffers for said data transfer is selected for a data transfer responsive to a size of data blocks for said data transfer.” The applied art also is not seen to disclose or to suggest new claim 30’s feature that “said data buffers in said client include different sizes and alignments than said data buffers in said server.” Accordingly, claim 12 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claims 21-24 and 31:

Claim 21 is reproduced here as amended:

21. A method including  
communicating file system requests and responses between a client and a file server;  
sending data between said client and said file server using a memory access operation involving at least one of plural data buffers of different sizes both in said client and in said file server, at least some of said data buffers both in said client and in said file server matched to sizes of data blocks to be transferred into or out of said data buffers, wherein selection of an address of one or more of said data buffers for a data transfer is responsive to information in said requests or said responses and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 21, at least with respect to “selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation.” The applied art also is not seen to disclose or to suggest new claim 31’s feature that “said data buffers in said client include different sizes and alignments than said data buffers in said server.” Accordingly, claim 21 and its dependent claims are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claim 25 and 32:

Claim 25 is reproduced here as amended:

25. A method including  
communicating database requests and responses between a client  
and a database server;  
sending data between said client and said database server using a  
memory access operation involving at least one of plural data buffers of  
different sizes both in said client and in said database server, at least some  
of said data buffers both in said client and in said database server matched  
to sizes of data blocks to be transferred into or out of said data buffers,  
wherein selection of an address for one or more of said data buffers for a  
data transfer is responsive to information in said requests or said responses  
and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 25, at least with respect to “selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation.” The applied art also is not seen to disclose or to suggest new claim 32’s feature that “said data buffers in said client include different sizes and alignments than said data buffers in said database server.” Accordingly, claim 25 and its dependent claim 32 are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Claim 26 and 33:

Claim 26 is reproduced here as amended:

26. A method including  
communicating requests and responses between a client and a server;  
sending data between said client and said server using a memory access operation involving at least one of plural data buffers of different sizes both in said client and in said server, at least some of said data buffers both in said client and in said server matched to sizes of data blocks to be transferred into or out of said data buffers, wherein selection of an address for one or more of said data buffers for a data transfer is responsive to information in said requests or said responses and is responsive to a size of data blocks for said memory access operation.

Substantially as discussed above with respect to claim 1, the applied art is not seen to disclose or to suggest the foregoing features of claim 26, at least with respect to “selection of an address of one or more of said data buffers for a data transfer ... is responsive to a size of data blocks for said memory access operation.” The applied art also is not seen to disclose or to suggest new claim 33’s feature that “said data buffers in said client include different sizes and alignments than said data buffers in said database server.” Accordingly, claim 25 and its dependent claim 33 are believed to be allowable over the applied art. Withdrawal of the outstanding rejection and allowance of these claims are therefore respectfully requested.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants’ silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

Conclusion

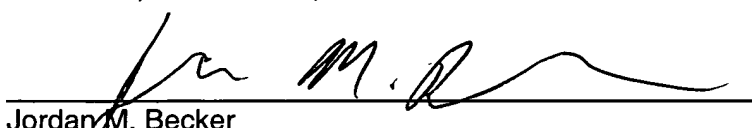
For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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